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FEDERALISM AND GOVERNMENT FINANCE

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Much of the analysis in public finance takes place in an institutional vacuum. The study of the incidence of various taxes or the provision of a public good often (and for good reason) is of a general and formal character that possesses little institutional content. The public sector in the real world, however, consists of a set of institutions--and spending and tax programs are enacted and function within this context.

A fundamental institutional dimension of the public sector is a "layering" of governments. The modern nation-state has a central government that addresses matters of national concern. But it also has other "levels" of government: regional, state, or provincial public bodies--and local government units with fiscal responsibilities for their own geographically defined jurisdictions. And this "federal structure" of the public sector opens up a whole new set of important and fascinating issues for public finance: the proper allocation of fiscal functions among the different levels of government, the most effective assignment

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of revenue responsibilities and specific tax instruments to the various levels; the role of intergovernmental financial transfers between levels of government; and the vertical assignment of regulatory responsibilities.

This paper is a survey of work on these issues--a survey of so-called "fiscal federalism." Over the past three decades, since the publication of Richard Musgrave's monumental volume, The Theory of Public Finance (1959), there has emerged a large body of research exploring a whole range of important issues in multi-level public finance. The purpose of this paper is to provide an overview and some reflections on this body of work with special attention to the challenging research agenda that remains.

The paper begins with a brief review of the division of fiscal functions among levels of government, using Musgrave's (1965) insightful prescription as a point of departure. Section II turns to the so-called "tax-assignment" problem. The issue here is whether certain forms of taxation are better suited for use at particular levels of government--or whether anything goes!

Section III addresses intergovernmental grants, a distinctive fiscal instrument of major and growing importance in the 20th century. The development of both the theory of intergovernmental grants and of their use as a policy instrument is an intriguing and curious one--and there are some quite fundamental matters that are still not well understood.

The most attention, as measured in terms of numbers of

published papers in the field, goes to the topic of local finance and the Tiebout model, the subject of section IV. A fundamental debate is still ongoing concerning the efficiency properties of "Tiebout behavior" in the context of existing local fiscal structure.

Sections V and VI address two more recent issues in the literature. The first, "regulatory federalism," takes up the locus of regulatory authority in a federal system. The question here is whether the setting of such things as standards for environmental quality should be centralized in a national regulatory authority or delegated to regional or local agencies. The final substantive section turns to an issue of public choice and fiscal federalism: the effect of the vertical structure of the public sector--namely, its degree of centralization--on the growth and size of the government sector as a whole. Under consideration here is the contention that increased centralization enhances the monopoly powers of the state and leads to an expanded public budget [Brennan and Buchanan (1980)]. The paper concludes with some reflections on centralizing and decentralizing forces in the public sector.

A brief comment is in order at the outset on the meaning of the term "federalism" as employed here. "Fiscal federalism" refers to a public sector with two or more levels of decision-making. Such a definition is far more inclusive than a narrow political definition that would encompass only systems with formal federal constitutions. From an economic perspective,

virtually any public sector is federal in character in that fiscal decisions are made, de facto, at different levels. The issue is really one of the degree of centralization. At the same time, I don't want to be misunderstood on this matter. This general point emphatically does not mean that the presence of a federal constitution is of no economic moment: constitutional structure surely matters for the way in which the public sector functions. The point more simply is that fiscal federalism addresses a particular aspect of the public sector: its vertical structure. It explores those issues that arise in the fiscal relationships among public decision-makers at different levels of government.

I. The Division of Fiscal Functions Among Levels of Government

As de Tocqueville observed over a century ago, "The federal system was created with the intention of combining the different advantages which result from the magnitude and the littleness of nations." From a fiscal perspective, we can understand de Tocqueville's basic point as suggesting that the presence of several levels of government offers an opportunity to centralize decision-making on those economic matters where national policies are needed and to allow "local" fiscal choice where it is most advantageous.

Musgrave introduced some substance to this general supposition by sketching out a proposed assigment of functions. Drawing on his tripartite division of functions for the public

sector, he concluded his brief treatment of fiscal federalism (1959, pp. 179-83) with the statement that "The heart of fiscal federalism thus lies in the proposition that the policies of the Allocation Branch should be permitted to differ between states, depending on the preferences of their citizens. The objectives of the Distribution and Stabilization Branches, however, require primary responsibility at the central level" (pp. 181-2).

Musgrave's rough guidelines for the assignment of functions, although the subject of considerable attention and some dispute in the subsequent literature, retain, it seems to me, much of their validity. Macroeconomic management for stabilization purposes--although the subject of wide ranging and fundamental controversy--must (to the extent it is pursued at all) be largely centralized. The management of the supply of money and credit is nearly everywhere the responsibility of a central monetary authority. On the budgetary side, there is limited scope for decentralized management of demand because of the openness of small local economies. The stimulative effects of local tax cuts, for example, would tend to flow out of the local economy as the bulk of any new spending is directed to goods produced elsewhere.

Edward Gramlich (1987) contends that decentralized government has some role in countercyclical policy. In particular, macro-economic "shocks" (such as the rapid rise in energy prices) often have a very different impact on various regions of a country. Decentralized governments can address the

particular conditions of their "local" economies; the central government will find such geographical discrimination difficult with its broader instruments for the management of aggregate demand. In addition, decentralized agencies can make some contribution to an effective countercyclical policy through the use of "rainy day" (or stabilization) funds. State and local governments can accumulate revenues during good times and then draw on these funds during recessions so as to stabilize spending and tax rates over the course of the business cycle. But the scope for decentralized stabilization policy seems quite limited so that the primary responsibility for this function must rest with the central government.

Likewise, there exist real constraints on decentralized redistributive policies. A local government, for example, which undertakes an aggressive policy to redistribute income from the wealthy to poorer households runs the uncomfortable risk of attracting low-income individuals and of chasing away the well-to-do. There is some evidence for the United States suggesting that such mobility of the poor exists to some extent and that it has discouraged the adoption of decentralized measures to assist the poor [See Brown and Oates (1987)]. In addition, Ladd and Doolittle (1982) suggest that support of low-income households is, to some extent, a national "public good." This is not an easy proposition to establish empirically. But even in its absence, the potential mobility of the poor creates a standard sort of externality that is likely to result

in the underprovision of assistance to low-income families under a wholly decentralized system [Brown and Oates (1987)].

However, this point should not be exaggerated. There is certainly some capacity for decentralized support of the poor. Pauly (1973) has argued persuasively that there is typically much greater concern in a community for the locally indigent than for the poor elsewhere. This leads to an efficiency argument for localized poor relief.

What emerges from all this, it seems to me, is a case for some sharing of the Distribution Function. David King argues (1984, p. 36) that there should be "...a basic national redistribution policy, and that subcentral authorities should be allowed to alter the degree of distribution in their areas within specified limits." At any rate, there does seem to be an important (if not exclusive) role for the central government in the Distribution Branch.

Musgrave is surely correct that "the heart of fiscal federalism" is to be found in the Allocation Branch. It is in the tailoring of outputs of local public goods to the particular tastes and circumstances of different jurisdictions that the real gains from decentralization are to be realized. This takes its sharpest form in the Tiebout model of local finance where individuals "shop" among jurisdictions offering alternative levels of outputs of local public goods. As Tiebout (1956) and the subsequent literature show, for the "perfect" case such shopping behavior leads to an outcome that realizes the potential

gains from decentralization to the full extent--the local public sector does fully as well as the private sector in allowing each individual to select the most efficient level of consumption of each good. As Tiebout put it:

> Just as the consumer may be visualized as walking to a private market to buy his goods, the prices of which are set, we place him in the position of walking to a community where the prices (taxes) of community services are set. Both trips take the consumer to market...Spatial mobility provides the local-public-goods counterpart to the private market's shopping trip (p. 422).

So long as the taxes individuals must pay reflect accurately the marginal cost of extending the local services to the new resident, the outcome will be Pareto-efficient, just as it is in the private sector.

The mobility of consumers, while certainly enhancing the scope for allocative gains from decentralized choice, is by no means necessary for the case for the decentralized provision of local (or regional) public goods. Even in the complete absence of mobility, there will still, in general, exist welfare gains from varying local outputs with local tastes and costs. The tailoring of outputs to local circumstances will, in general, produce higher levels of well-being than a centralized decision to provide some uniform level of output across all jurisdictions [See Oates (1972, p. 35) on the Decentralization Theorem]. And such gains do not depend upon any mobility across jurisdictional

boundaries.[1]

The potential gains from decentralized choice can be quite large.[2] But the actual realization of these gains in the context of more realistic fiscal institutions is a matter of some contention. We shall return to this issue in the sections on local finance and on interjurisdictional competition.

II. The Tax-Assignment Problem

In addition to assigning the responsibility for different expenditure functions to the appropriate levels of government, there is the matter of revenue instruments. The issue here is the vertical structure of the revenue system. Are certain tax instruments, for example, better suited for use by the central government and others more appropriate at the local government level? Or, alternatively, is this simply a matter of administrative convenience?

A cursory examination of vertical revenue structure across countries reveals wide diversity. Nearly all major forms of taxation are employed at central, state or province, and local levels somewhere in the world. This does not imply, however, that the tax-assignment problem is a vacuous issue. An improper

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[1]In fact, mobility can, under certain circumstances, be a source of distortions. In a regional context, for example, if individuals must work in the same jurisdiction in which they reside, mobility can produce inefficient outcomes. See Flatters, Henderson, and Mieszkowski (1974) and Stiglitz (1977).

[2]See Bradford and Oates (1975) for an attempt to quantify these gains.

vertical alignment of tax instruments may come at considerable cost to society, both in efficiency and equity terms.

For a systematic treatment of this issue, we can turn (once again) to Musgrave (1983). In a short paper that provides a useful point of departure for the analysis of this problem, Musgrave has put forth a set of general guidelines for the assignment of revenue instruments to different levels of government. His "principles" for tax assignment include:

(1) Highly progressive taxes, especially for redistributional purposes, should be centralized. For the reasons discussed in the preceding section, such taxes are to be avoided at decentralized levels of government because of the perverse incentives that they create for migration among jurisdictions. A personal income tax with a strongly progressive rate structure should thus be reserved for the central government.

(2) In general, lower level governments should eschew taxes (at least nonbenefit taxes) on highly mobile tax bases.[3] Such taxes can distort the locational pattern of economic activity. Decentralized governments are better advised to employ taxes on relatively immobile tax bases (like land).

(3) The central government should exercise primary taxing authority over those tax bases that are distributed across

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[3]A case in point is a state or local corporation income tax. Such a tax on mobile capital introduces troublesome and costly administrative complexities and is the likely source of locational inefficencies. See McLure (1986a, 1986b).

jurisdictions in a highly unequal fashion. Taxes on deposits of natural resources, in particular, should be centralized to avoid geographical inequities and to prevent allocative distortions that can result from the "local" taxation of such resources.

(4) While user taxes and fees have much to commend them at all levels of government as benefit taxes, they are an especially appealing revenue instrument at the most decentralized levels of government. They create, in principle, no potentially distorting incentives for movements among jurisdictions. In the context of the Tiebout model of local finance, for example, such taxes promote efficient decisions by mobile consumers.

The revenue system also has important implications for fiscal decision-making. Taxes, for instance, which are largely exported to residents of other jurisdictions effectively reduce the tax-price to locals of public programs--and, in this way, may encourage excessive public expenditure on local services (Charles McLure, 1967). Roger Gordon (1983) has explored this general set of issues in an optimal taxation framework and finds numerous channels through which local taxes generate externalities and the associated inefficiencies when local decision-makers seek to maximize the well-being of their own residents. In the vertical design of tax structure, it is thus important to be aware of the ways in which the use of particular taxes can create perverse signals for fiscal choices. User, or benefit, taxes again get excellent marks on efficiency grounds: they not only tend to provide the proper incentives for location decisions but also

give the right cost signals to residents for the determination of levels of local services.

The discussion points to a general prescription for vertical tax structure. It suggests, in brief, that the central government is in the most advantageous position to employ progressive redistributive taxes (on personal income or, perhaps, expenditure), while highly decentralized levels of government should seek out relatively immobile tax bases (like local real estate) or should rely on user charges. Intermediate level governments like states or provinces obviously have more room to maneuver than small local governments; there is more scope here for the use of income and sales taxes--although potential mobility is still operative to some degree as a constraint on tax policy.

Although the vertical structure of revenue systems worldwide displays considerable variation, it appears to be far from random. There are some general patterns. And the normative perspective emerging from the preceding discussion possesses some explanatory power. We do, in fact, find that many countries rely heavily on progressive income taxation at the central level. Local governments, in contrast, often place a primary reliance on property taxation (where at least the land portion of the tax base is immobile). Local use of charges for certain public services is also quite common. A more systematic study of the extent of similarities in vertical tax structure and their correspondence to this normative framework would be very useful.

The next step for research on the tax-assignment problem brings us to the important, but more difficult, issue of the magnitude of the distortions from deviations from this prescription. It is a fairly straightforward matter to catalogue the potential forms that tax-induced distortions can take. But it is a much harder matter to assess the approximate size of these distortions. It may well be the case that the distortions discussed in this section tend, in practice, to be rather minor--that the actual magnitude of the welfare losses is small.

There is little evidence on this important question. In one recent study, Timothy Goodspeed (1989) has explored the use of redistributive taxes at the local level. Making use of a general-equilibrium model of a metropolitan area, Goodspeed compares the efficiency and redistributive properties of local income taxation relative to a system of local head taxes. He finds that local governments in his model can employ progressive income taxes to accomplish some significant income redistribution with only quite modest efficiency losses. The Goodspeed study is purely a general-equilibrium exercise with no direct empirical content--but nevertheless it certainly suggests the possibility that we have exaggerated the extent of the constraint on the local use of ability-to-pay taxation. There is a real need for some careful empirical work to provide us with a better sense of the magnitudes that we are dealing with here.

In a somewhat similar vein, Peter Mieszkowski (1983) has examined the distortions from the decentralized taxation of

natural resources. In particular, Mieszkowski and Toder (1983) estimate that the efficiency losses resulting from distorted location decisions under the decentralized taxation of energy resources in the United States amount to roughly 4 percent of energy revenues. The estimates are hedged with a number of important qualifications, but again one comes away with the sense that the distortions may not be of great moment. There are, of course, some important equity arguments (as well as an efficiency argument) for the centralization of such tax bases.

In sum, we have some general prescriptions for the assignment of revenue instruments to different levels of government. But we badly need a better empirical sense of just what is at stake here.

III. Intergovernmental Grants and Revenue-Sharing

In a system of governments, there is an extra degree of freedom in the budget constraint in the sense that budgetary balance (inclusive of any debt issues) is not required at each level--or unit--of government. Revenues at one level of government, for example, can fall short of spending, if the difference is made up by transfers from other levels of government. The use of such intergovernmental transfers--or grants--has become a prominent feature of modern fiscal federalism. In the United States, for instance, the state and local government sector received about $120 billion in grants from the federal government in 1989--accounting for roughly 16 percent of state and local receipts. Local government in the

U.S. is yet more dependent on intergovernmental transfers with grants from state to local governments constituting approximately one-third of local revenues. These fractions are even larger in some other countries.

Economists provided, early on, a normative framework for the structuring of a system of intergovernmental grants. George Break (1967), in a major Brookings study of intergovernmental fiscal relations, set forth a systematic view of the grant system.[4] This perspective called for a set of open-ended matching grants to decentralized governments for programs that involved external benefits to other jurisdictions. Following the standard prescription for Pigouvian subsidies to individual decision-makers, the argument here was that the appropriate matching terms would induce state or local governments to "internalize" the benefits provided to residents of other jurisdictions into the "local" decision calculus. The second class of intergovernmental grants consists of unconditional grants; the case for such transfers with no strings attached rests in part on equity grounds--"equalizing grants" with more generous sums going to poorer jurisdictions would promote society's redistributional goals.

Break advanced a second, and more intriguing, rationale for unconditional grants--one that I want to examine more closely here. The second argument concerned a general tendency toward

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[4]See also Break's later treatment (1980, Chapter 3) and Oates (1972, Chapter 3).

underspending on the part of state and local government. Fearing adverse effects on business investment and economic growth, state and local officials (so the argument goes) are reluctant to increase tax rates or introduce new taxes. In short, an atmosphere of "tax competition" leads to suboptimal state and local budgets. Unconditional grants, from this perspective, provide a needed supplement to state and local revenues on purely efficiency grounds--a supplement that would result in a substantial increase in state and local spending.

This line of argument was further buttressed by Walter Heller and Joseph Pechman who, in the 1960's, pressed the case for revenue-sharing by the federal government with state and local governments. The basic premise for the proposed Heller-Pechman Plan was that a highly income-elastic federal revenue system generated large and "automatic" increments each year to federal revenues--increments that were larger than needed for federal government programs and that would tend to throw the federal budget into surplus and exert a "fiscal drag" on the macro-economy. In contrast, expenditure "needs" were growing rapidly at the state and local levels where they tended to outstrip the more modest growth in revenues from a relatively income-inelastic state and local revenue system. The cure for this problem was revenue-sharing, which would effectively link the rapidly growing sources of revenues at the federal level with rapidly growing expenditure needs at state and local levels.

All this sounds rather curious now--in these days of huge

federal deficits. But things were quite different in the 1960's. I remember Pechman presenting a seminar at Princeton in the late 1960's at which he argued persuasively on behalf of the revenue-sharing proposal. He stressed that the additional funds would provide a much needed stimulus to state and local spending--in fact, I can still recall him citing a Brooking's estimate from a not fully identified source that "approximately 52 cents of every revenue-sharing dollar" would be directed into additional public expenditure.

I raise this historical episode not just for a glimpse into fiscal history--there are, in fact, some very central issues at stake here that go to the heart of intergovernmental fiscal relations. I wish, at this juncture, to turn to the matter of the effects of intergovernmental grants on public expenditure. I will return to Break's troubling issue of tax competition in a later section of the paper.

There is something quite disturbing about Pechman's claim that 52 cents of every dollar of unconditional grants will be spent by state and local government. Unconditional grants (assuming that they are truly unconditional--that is, lump-sum--in character) should have only income effects on the recipient's budgetary behavior. As David Bradford and I (1971) showed formally, unconditional grants to a community should, for a wide class of collective choice rules, have effects on spending that are identical to those of an increase in private disposable income. But given the shares of state and local government

spending in national income, it is hard to believe that desired spending at the margin on state and local services is more than say 10 to 15 cents per dollar of additional income. Pechman's estimate is obviously much in excess of this--and later work tends to support Pechman on this matter. Gramlich (1977), in a widely cited survey of research on intergovernmental grants, suggests that existing empirical work indicates that typically something like 40 to 50 cents of such grant dollars manifest themselves in additional public spending.

This phenomenon is well known in the literature as the "flypaper effect" to indicate that "money sticks where it hits." Taken at face value, the flypaper effect has some rather damning implications for the functioning of democratic institutions. It suggests that the representatives of the populace in state and local government do not follow, in budgetary terms at least, the will of the electorate. The flypaper effect, for example, appears wholly at odds with the prediction of the median-voter model, a model of responsive government. Instead, flypaper behavior points to the presence of Niskanen sorts of politicians who seek to expand the public budget for their own purposes beyond levels desired by the citizenry. It suggests that political competition is insufficient to provide needed fiscal discipline.

The public finance literature has, predictably, not stopped here. In fact, this phenomenon has given birth to a vast number of papers that respond in widely differing ways to this empirical

"challenge" to existing theory.[5] The responses are basically of three different kinds:

(1) Some claim that the flypaper effect is fundamentally a "mirage" of one form or another. This set of papers argues that grant programs have been misunderstood and modelled incorrectly--and that if things are done properly, the flypaper effect will disappear (or at least take on a much reduced magnitude).

(2) A second line of response is to admit the existence of the flypaper effect, but to provide a framework in which it is fully consistent with the behavior of responsive government--with, say, the median-voter model.

(3) The third class of papers, in a public-choice spirit, essentially takes the existence of the flypaper effect as a refutation of responsive public-sector agents. These papers present models of a Niskanen sort in which, through various mechanisms, officials "overspend" grant funds relative to what their constituents would truly wish.

I shall not attempt here an exhaustive survey of this literature, but it is of interest to get the flavor from selected papers for these three ways of dealing with the flypaper effect. The first set of papers contends that the "measured" flypaper effect is the result (largely at least) of analytical and econometric imprecision. One error of this type is to treat certain grants mistakenly as lump sum in character. In this

[5]For a useful, if now a bit dated, survey and assessment of work on the flypaper effect, see Ronald Fisher (1982).

vein, Howard Chernick (1979) has argued that in choosing recipients for various project grants (that are funded with what are in appearance closed-ended lump-sum funds) granting agencies favor those projects where the recipient agrees to spend the largest amount of its own funds. Such procedures effectively convert an apparently lump-sum grant into one with implicit matching provisions. It would certainly not be surprising to find a large expenditure effect for such programs.

Taking an alternative but related tack, Robert Moffitt (1984) contends that measured flypaper effects can result from misspecifications that involve contemporaneous correlation between the disturbance term and the price and income variables in an OLS equation. In a careful study of the AFDC program that makes use of an econometric technique that accounts for nonconvexities in the program, Moffitt does not find a flypaper effect. Bruce Hamilton (1983) argues along a different line that, because of omitted variables, the propensity to spend from private income is understated by expenditure studies relative to the propensity to spend from grants received from higher level governments. The basic claim in this set of papers is that, with proper analysis and estimation procedures, we will not find (much of) a flypaper effect.

The second class of responses does not contest the existence of the flypaper effect, but finds that it is fully consistent with responsive government--that it is consistent with the maximization of a representative consumer's utility. Jonathan

Hamilton (1986) offers an interesting explanation of the flypaper effect along these lines. In Hamilton's model, local governments must resort to distortionary taxation to raise own revenues--so that there is an added cost, a deadweight loss, associated with locally raised funds. Grant funds are free of any such cost. It is less expensive, in a sense, for a community to spend grant funds on local services than to raise local taxes to fund these services. A larger fraction of an increment to grant funds will thus be directed into local government spending than of private income. In Hamilton's model, then, an observed flypaper effect emerges that is fully consistent with, say, a median-voter model.

The third general approach to the issue turns to various public-choice models involving budget-maximizing bureaucrats, fiscal illusion, and agenda manipulation that produce a flypaper effect as their predicted outcome. It is to be emphasized that budget-enlarging propensities by public agents are not in themselves sufficient to generate overspending. Effective political competition can prevent such outcomes. There must be further elements present that create the capacity for bureaucrats to endulge these propensities. Some of the papers in this class introduce a kind of fiscal illusion (Courant et al., 1979; Oates, 1979) through which local agencies can "hide" grant funds to some extent--and use them to induce the electorate to believe that the marginal cost of public services is lower than it is in truth. Alternatively, Filimon et al. (1982) make use of the Romer-Rosenthal framework (1980) under which local officials have

certain agenda-setting prerogatives because of existing "reversion" provisions (i.e., voters support higher budgets than they prefer because the alternative "reversion" budget is yet more distasteful). It is not hard to show that models in this spirit can generate flypaper effects, as local agencies manipulate grant funds in ways that allow large chunks of them to flow into an expanded public budget.

These are just a few selections from what has become a large literature on the flypaper effect. The real problem at this juncture is trying to discriminate between the alternative approaches to explaining this empirical finding. There is a real need to devise empirical tests that can systematically distinguish among them.

There is one further aspect of the flypaper effect that has gone largely unnoticed and strikes me as quite intriguing: a potential asymmetry. I was struck in a recent paper by Gramlich (1987) with his observation concerning the response of state and local government to the fiscal retrenchment under the Reagan Administration during the 1980s. This retrenchment involved large cutbacks in a wide range of federal grant programs to state and local government. Gramlich observed that state and local governments responded to these cutbacks by picking up most of the slack: they increased their own taxes and largely replaced the lost grant funds so as to maintain levels of existing programs.[6]

[6]Whether or not this is, in fact, true is not wholly clear from the aggregate data. There appears to be some slowing in the growth of state and local spending during the early 1980's when

If this is so, it implies a basic asymmetry in the response to intergovernmental grants. It suggests that while state and local government spending responds vigorously to the receipt of grants, it is relatively insensitive to the loss of grants. Does money stick where it hits--but come unstuck without leaving a gaping hole behind? This merits some study.

There is one further aspect of the grant literature that I want to call attention to: its impact on actual grant policy. As discussed earlier, through the efforts of Break and others, public finance economists have developed a systematic normative theory of intergovernmental grants. It is of interest to see how well existing grant systems correspond to the economist's "model."

We look first for a set of matching grants where spillover benefits are present. On first look at the federal grant system in the United States, we, in fact, find some programs that can be understood in these terms: matching grants for interstate highways, municipal waste treatment plants, and other projects involving external benefits. On closer examination, however, these grant programs don't correspond at all well to the theoretical precepts. Most of them have had very high federal matching rates--80 to 90 percent. It is impossible to believe that external benefits are anything like large enough to warrant such generous matching terms (Oates, 1980; Gramlich, 1985). Moreover, these programs often cut off at specified, modest

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federal grants were cut. A careful study of all this is needed.

levels so that they are actually closed-end matching programs from the perspective of potential recipients. And, as theory makes clear, closed-end matching grants are, in principle, no different from unconditional grants once the cutoff point is reached. Federal grants for allocative purposes do not, in fact, resemble their theoretical counterparts very well.

More generally, Robert Inman (1988) finds in a careful and recent study that the economic theory of intergovernmental grants cannot provide a very satisfactory explanation of the structure of U.S. grant programs; he finds that a basically political model does a much better job of explaining the U.S. system of federal grants. Even for federal grant programs whose primary objective is fiscal equalization, Holcombe and Zardkoohi (1981) find that various political variables have far more explanatory power than the economic variables that represent the stated goals of the program. Some state aid programs may do better in this respect. John Yinger and Helen Ladd (1990), for example, find that state assistance to central cities has been focused on the cities with the greatest need.

At any rate, it appears that intergovernmental grant systems do not mirror very accurately the economist's principles for the design of such systems. While this may be dismaying, it does have a positive aspect: it suggests that careful analysis and reform of the grant system may yield large returns in terms of a more effective realization of society's allocative and distributive goals.

IV. Local Finance

There now exists an enormous theoretical and empirical literature on local finance--and a systematic survey and assessment of this entire body of research is well beyond the scope of this paper.[7] Instead, what I wish to do here is to explore two central and intriguing issues in this literature relating to the relevance of the Tiebout model to the functioning of the local public sector.

As Musgrave emphasized, decentralized finance assumes its greatest importance in the Allocation Branch. And the Tiebout model in its pure form embodies the full thrust of Musgrave's contention. As noted earlier, the Tiebout world is one in which individual households "shop" among communities and select as a place to reside the community that provides the fiscal package best suited to their tastes. The appealing efficiency properties of the model are dependent on a range of heroic assumptions--several of which have been investigated in the literature. To take one important example, Tiebout assumes that all income takes the form of dividend income. This assumption is much stronger than it need be; the idea here is simply to break any necessary link between the jurisdiction of residence and the jurisdiction in which one works. If, in contrast to Tiebout, one requires individuals to work and reside in the same jurisdiction (this might be better described as a "regional model"), then the nice

[7]For an excellent survey of the economics of the local public sector, see Daniel Rubinfeld (1987).

efficiency properties of the model are largely lost [See Flatters, Henderson, and Mieszkowski (1974) and Stiglitz (1977)]. It is certainly arguable, however, that the Tiebout assumption is the better one for the analysis of local finance in a metropolitan setting with a multiplicity of small municipalities.

I wish, however, to examine two other issues. The first has to do with the way in which local governments finance public services: the local revenue system. And the second concerns the nature of the production functions for local services--a matter that several recent papers have addressed.

The original Tiebout paper is quite remarkable in many respects--one of which is the vague way in which several critical matters are treated. The issue of how communities finance their services is little discussed--the term "tax" appears hardly at all in the entire paper. It was left to the subsequent literature to work all this out in a more careful way. What is clear is that the efficiency properties of the model depend critically on the use of marginal-cost pricing. Tiebout communities must charge residents a price or "tax" equal to the cost of extending the local service to an additional resident. Assuming constant costs along the population dimension, this suggests an equal head tax on all residents so that individuals end up buying local services in much the same way as they purchase private goods--they pay a price equal to marginal cost. Tiebout financing thus becomes a form of benefit taxation.

Now it is true that local governments rely to some extent on

user charges to finance certain local services. But the great bulk of own revenues for most local governments comes from local property taxes. This raises a serious problem. On first inspection at least, local property taxation bears little resemblance to the marginal-cost pricing assumed in the Tiebout model. In fact, it is not hard to show that the tax discourages the consumption of housing and by linking housing consumption to the tax bill also distorts decisions concerning local public-service consumption (Oates 1972, Ch. 4; Hamilton, 1976). It would thus appear that the system of finance required for the efficient operation of a Tiebout system is, in practice, largely lacking--and with it goes, to some extent at least, the efficiency case for a system of local finance with fiscally mobile households.[8]

In an ingenious paper, Bruce Hamilton (1975) tried to save the day. Hamilton showed that the introduction of a system of "fiscal" zoning ordinances into the model (under which local governments effectively specify a minimum consumption level of housing) converts the local property tax back into a pure benefit tax--and thereby restores the efficiency properties of the mobility model. The zoning constraint effectively divorces the housing-consumption decision from the selection of a level of local public goods consumption and eliminates the distortion in these choices.

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[8]Mrs. Thatcher's introduction of a local poll tax in the United Kingdom--the source of riots in the realm--can be justified on efficiency grounds from a Tiebout perspective!

The Hamilton model, however, involves some strong assumptions. And we have been left with the perplexing and, as yet, largely unresolved issue of which model provides the better description of the operation of the local sector. On the one hand, we have the socalled "new view" of the property tax, championed by Peter Mieszkowski and George Zodrow (1989), which sees the tax as distorting; under this view, the "average" burden of the tax across the country falls on owners of capital and local differentials function like "excise taxes" with a complicated pattern of incidence. The Mieszkwoski-Zodrow view thus calls into question the efficiency properties of our system of local finance.

On the other hand, there is the Hamilton-Fischel view that the local property tax approximates a benefit tax with its salutary implications for the efficient functioning of the local sector. Hamilton and Fischel base their case on the widespread use of zoning measures throughout the United States and their sense that these measures typically constitute binding constraints on local fiscal and housing decisions of the sort envisioned in the earlier Hamilton model.

The evidence bearing on this basic issue is indirect and fragmentary. There is, for example, a considerable body of econometric work that finds substantial capitalization of fiscal differentials across communities.[9] One's first inclination [as

[9]Although much of this literature finds a high degree of capitalization of fiscal differentials, a recent and careful study by Yinger et al. (1988) yields estimates suggesting a much

in my (1969) paper] is to take this finding as empirical support for the Tiebout model. If individuals shop among communities, we might expect to find them bidding up the value of residences in communities offering more attractive fiscal packages--that is, high levels of services at relatively low tax rates.

Further scrutiny, however, has suggested that the implications of capitalization are far more restricted. In fact, in a pure Tiebout equilibrium, it can be argued that there should be no capitalization at all (Edel and Sclar, 1974). At any rate, I think that it is clear now [see Mieszkowski and Zodrow (1989)] that capitalization can legitimately be taken as evidence that individuals shop among communities and pay more for houses in fiscally advantaged jurisdictions--but it does not tell us anything about whether the "supply side" of the Tiebout world is functioning as envisioned in the model. Some capitalization is, in fact, consistent with both the benefit and new views of local property taxation so that this finding does not help us to distinguish between these two basic hypotheses.

There are some bits of evidence that one can take as favorable to the Hamilton-Fischel position. A necessary condition for the reasonably efficient operation of the Tiebout mechanism is a wide range of choice among communities. A study by Fischel (1981) of metropolitan areas in the United States suggests that this condition is probably satisfied--most urban

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smaller extent of capitalization of property-tax differentials among a sample of Massachusetts localities.

areas in this country provide a wide range of residential choice for individuals who work (or for other reasons reside) in the area.

The presence of "Tiebout-sorting" in the local sector would manifest itself in tendencies toward homogeneous community composition. Tiebout homogeneity takes the form of (roughly) equal demands for local services--which are not directly observable. But assuming that demand varies systematically with such things as family income and housing demand, we should expect to find in a Tiebout world that the variation in income and in housing consumption is significantly less within communities than across communities. Casual empiricism suggests that this is indeed true as do two systematic studies of the matter (Hamilton, Mills, and Puryear, 1975; Eberts and Gronberg, 1981).[10] This is not, however, a very strong test. Tendencies toward homogeneity are surely consistent with other sorts of models of local fiscal behavior.

It would be useful to have some more direct evidence on fiscal zoning measures--on their pervasiveness and on whether or not they seem typically to constitute binding constraints on local decisions. To support their sense that such ordinances are generally not binding, Mieszkowski and Zodrow (1989) cite the

[10]Pack and Pack (1978), in a study of Pennsylvania communities, find heterogeneity in excess of that which they view as consistent with a Tiebout world. However, it is unclear what excessive means in this context. Moreover, the extent of heterogeneity may be exaggerated somewhat by the measures used in the study.

Houston case where they claim that the vast majority of houses exceed (by a large margin) the size constraint imposed by existing ordinances. But some students of zoning take issue with this claim. Fischel (1990), for example, notes that "Virtually every law professor who specializes in land use regards fiscal zoning as a serious constraint" (p. 3). Moreover, the simple presence of heterogeneity does not undermine the Tiebout-Hamilton model. As long as the supply of undeveloped land is fixed and is itself subject to ordinances that prevent adverse fiscal impacts, the property tax will function as a benefit tax. As Hamilton (1976) showed, capitalization will effectively eliminate intracommunity transfers on existing developed parcels and thereby "accomodate" existing heterogeneity.

In sum, we badly need more systematic and carefully assembled evidence on this basic issue. As things stand at this juncture, it is impossible to reject either the new view or the benefits view in favor of the other. And this is an important matter: the two views have fundamentally different implications both for the efficient functioning of the local public sector and for the incidence of local property taxes.

There is a second, troublesome issue that I want to raise briefly. One of the many assumptions of the Tiebout model is that communities possess identical production functions for local services. This might seem a reasonable and relatively innocuous assumption--we are accustomed to assuming, for private-sector production, that firms have identical production functions. But

this assumption is far less compelling in the public sector--and this has bothered me for some time now (Bradford, Malt, and Oates, 1969; Oates, 1977, 1981). Although communities may have similar access to purchased inputs and the provision of "directly produced" services such as police patrols and school classes, they have much less control over the levels of "final services" such as the degree of safety in the community or the quality of the local school system. The point here is that the level of final services (and this is what consumers presumably care about) depends not only on budgetary inputs but upon the composition of the community.[11] Two communities with identical levels of inputs per capita may have very different levels of final outputs, if, for example, their populations differ in the propensity to engage in illegal activities or possess differing levels of motivation and ability to learn in school.

This raises some thorny problems for local finance. Several recent papers have explored this matter, and three of them, in particular, have examined the implications for efficient community formation (Brueckner and Lee, 1989; de Bartolome, 1990; and Schwab and Oates, 1991). The simplest approach (followed in all three papers) is to assume that there exist two kinds of people with differing effects on "productivity" in local services--and that the cost of providing a specific level of local outputs depends upon their proportions in the local

[11]Put more formally, it is the level of final services that enters as an argument in the individual utility functions.

population (as well as on levels of purchased inputs). There may easily exist certain gains in production from the "mixing" of the two types of people (e.g., the presence of good students may, over certain ranges, raise the performance of weaker students), which creates a case in terms of cost-savings for some local heterogeneity in the population. Optimal community composition in such a setting can involve a tradeoff between the gains from homogeneity in consumption (a la Tiebout) against the cost-savings associated with heterogeneity in production.

The interesting issue here is how equilibrium outcomes in a mobility setting compare with the optima. This is a complicated problem that can involve vexing nonconvexities. Brueckner and Lee (1989) show that in a club-theoretic framework, a community developer can achieve an efficient outcome by employing differential pricing: the "entrance fee" must be higher for the class of individuals that has the less favorable effect on "community productivity" for local services.

The difficulty is that such price discrimination is typically not feasible in a public setting. Schwab and Oates (1990) note that such pricing would typically involve a "super-regressive" tax system in which lower-income families are charged higher local taxes (in absolute amount) than are higher-income families. One way to address the problem is through a second-best measure consisting of a system of equalizing grants that make communities more willing to accept lower-income households. This, interestingly, is a pure efficiency argument in support of

equalizing grants to local governments.

These are simply two of several major and interesting issues in the local finance literature. Decentralized finance has compelling efficiency-enhancing potential--but there are a number of complications that need to be better understood.

V. Regulatory Federalism

Although regulatory policy may appear to lie outside the province of an essay on fiscal federalism, it will become clear that the two are, in important ways, intimately related. The basic issue in this section concerns the centralization of regulatory activity--and I shall suggest that the analysis of fiscal issues in a federal structure has much to contribute to our understanding of regulatory federalism. For purposes of concreteness, I shall place the discussion in the context of environmental policy. But as should be obvious, issues in environmental federalism have direct relevance to regulatory issues in other areas.

I begin by pointing out a striking and intriguing anomaly in U.S. environmental policy. Under the Amendments to the Clean Air Act in 1970, the U.S. Congress directed the Environmental Protection Agency to set uniform standards for air quality on a nationwide basis. The EPA responded by establishing such standards: maximum permissible concentrations of key air pollutants that are to be met at <u>every</u> point in the country. Two years later, the Congress enacted a set of Amendments to the Clean Water Act. Here, the Congress instructed the states to set

their own standards for water quality and to develop programs to achieve those standards. The contrasting approaches pose the basic question: Should we set national standards applicable to all areas in the nation or should we adopt a more decentralized approach to standard-setting that would allow state or local agencies to determine specific standards for their own jurisdictions?

On the first cut, basic economic principles seem to provide a straightforward and simple answer to this question: standards should vary among jurisdictions according to local circumstances. The argument here is essentially the same as that for the decentralized provision of any public good. Since for many pollutants, the benefits and costs of environmental management are regional or local in character, the optimal level of control is likely to vary from one jurisdiction to another. A first-best outcome will clearly involve the setting of standards such that the marginal benefits from pollution control equal marginal abatement cost on a jurisdiction-by-jurisdiction basis (Peltzman and Tideman, 1972). This proposition is subject to the important and obvious qualification that it applies to those pollutants whose effects are localized--where emissions travel across boundaries (as in the case of acid-rain deposition), wholly decentralized solutions are obviously not appropriate for the usual sorts of reasons.

But where the benefits and costs of regulatory programs are "local" in nature, a decentralized approach appears to be in

order. This simple prescription, however, may overlook certain political realities in local fiscal and environmental decision-making. John Cumberland (1981), for example, has argued that in their eagerness to attract new business investment to create jobs and income, local decision-makers are likely to relax environmental standards excessively. This argument is obviously a close cousin to George Break's concern over the effects of tax competition among state and local government. As Break (1967) has put it:

> The trouble is that state and local governments have been engaged for some time in an increasingly active competition among themselves for new business...In such an environment government officials do not lightly propose increases in their own tax rates that go much beyond those prevailing in nearby states or in any area with similar natural attractions for industry...Active tax competition, in short, tends to produce either a generally low level of state-local tax effort or a state-local tax structure with strong regressive features (pp. 23-24).

This issue of interjurisdictional competition has received increased attention in recent years, following on the devolution of fiscal and regulatory responsibility during the Reagan Administration. John Shannon of the Advisory Commission on Intergovernmental Relations suggests that we have entered a new era of "Fend-for-Yourself Federalism." From this perspective, the basic Break-Cumberland argument is that central intervention is needed to "save state and local governments from themselves."

This is not an easy argument to assess--but it is clearly an important one for it goes to the very core of the case for a

decentralized fiscal system. Until recently at least, there was little systematic theory addressing this issue--and very little evidence aside from informal and anecdotal reports.

In two recent papers, Robert Schwab and I (Oates and Schwab, 1988,1989) have constructed a set of models that explore the properties of interjurisdictional competition. In these models "local" decision-makers set the values of various policy parameters involving both local tax rates on capital and environmental standards. The setting of these parameters involves explicit tradeoffs between local wage income and levels of local public goods and environmental quality--the kinds of tradeoffs that are at the heart of the tax competition argument. For the "base case," these models produce an encouraging finding: local decisions that maximize the welfare of local residents are efficient. Environmental standards in these models are set such that the cost of improved environmental quality at the margin equals the residents' willingness-to-pay. In short, in our basic models of interjurisdictional competition, local fiscal and regulatory decisions yield the right sorts of outcomes; such competition is, in these models, efficiency-enhancing--it is not a source of distortions in resource allocation.

In the second of the two papers (1989), we have extended the basic model to encompass the issue of the well-being of future generations--in response to the expressed concern that purely local decisions in the framework of a mobile society will not take into account the welfare of those yet unborn. An

interesting result emerges in our two-period model: we find that local decision-makers again make efficient decisions--but this time in a way that incorporates the welfare of future generations. The mechanism that generates this result is the capitalization of environmental damages that manifest themselves in the future. Present residents take into account the interest of future residents because prospective environmental quality is reflected in the present value of land parcels. While this may not be a surprising finding, it is useful to remember that there is a mechanism that provides this kind of discipline on local choices that is absent at the central level. The usual presumption is that central decision-makers are in a better position to take into account the well-being of future generations--but this is not altogether clear.

The results from the basic models are thus supportive of fiscal and regulatory decentralization. At the same time, these results are not highly robust. They are hedged by a number of important qualifications. If, for example, local officials behave in a Niskanen-type fashion and seek to maximize the size of the local budget, they will, in our models, not only set tax rates too high, but will also establish excessively lax environmental standards in order to attract more business investment and expand the local tax base. Alternatively, if there exist dissident groups in the community with differing interests in economic development and environmental quality, the outcome is no longer likely to be an efficient one (although it

can involve too little or too much pollution). Perhaps even more important, if local government is constrained in its choice of tax instruments to a tax on local capital, then as Zodrow and Mieszkowski (1986) and others have shown, inefficiently low levels of local public goods are the predicted result. Or, in a setting of "imperfect competition" with jurisdictional interactions, Mintz and Tulkens (1986) find that Nash equilibria exhibit some tendency toward underprovision of local services.

I know of no systematic empirical evidence on this matter. But one can't help but feel that we are not on the right course with some of our rigid, national standards for air quality. It is becoming increasingly clear, for example, that the costs of requiring Southern California to meet the same standards for air quality as the rest of the nation are exorbitant and unreasonable. Instead of acknowledging the special circumstances of the Southern California basin, we have responded by extending the time schedule for compliance--and Southern California continues adopting new measures, unjustifiable on any sort of benefit-cost calculation, and with no prospect of ever attaining the standards. The cost, it would seem, of ignoring the case for environmental federalism is likely to be very high.

This may well be true of certain other forms of regulation. The imposition of rigid regional land-use regulations that disregard the distinctive character of local jurisdictions can result in substantial welfare losses. Indeed, as we discussed in the last section, local discretion on zoning matters is essential

for the efficient functioning of the Tiebout-Hamilton model. Fiscal federalism and regulatory federalism are interrelated in fundamental ways.

VI. A Public Choice Issue: Decentralization and the Size of the Public Sector

Geoffrey Brennan and James Buchanan (1980) have suggested a wholly different perspective on the role of decentralization in the public sector. Their contention is that decentralization can serve as a constraint on the undesired expansion of government.

The twentieth century has been characterized by a rapid growth of the public sector in most of the developed countries. This continued growth has become the source of widespread concern both in the political world and in certain parts of the scholarly community [See, for example, the papers in Forte and Peacock (1985)]. Presidents and Prime Ministers have been elected on platforms committed to programs of budgetary restraint.

In the public choice literature, one finds extensive efforts to understand and describe the process of public-sector growth. The Brennan and Buchanan view, a very striking one indeed, is that the public sector can be envisioned as a monolithic agent, a Leviathan, that systematically seeks to maximize its budgetary size--irrespective of the desires of the citizenry. Musgrave (1981), among others, has vigorously contested this view. But what is of interest here is the Brennan and Buchanan claim that decentralization is an effective mechanism to control Leviathan's

expansive tendencies. The basic argument is that, just as competition in the private sector exercises its disciplinary force, so competition among different units of government at a decentralized level of government can break the monopolistic hold of a large central government. As Brennan and Buchanan put it, such competition within the public sector in the context of the "interjurisdictional mobility of persons in pursuit of 'fiscal gains' can offer partial or possibly complete substitutes for explicit fiscal constraints on the taxing power" (1980, p. 124).

This is a not only a very provocative policy recommendation for decentralization of the public sector--it also suggests a hypothesis by which the Leviathan view of government can be put to an empirical test. The logic of the Brennan and Buchanan argument suggests that, other things equal, we should expect to find that the size of the government sector varies inversely with the extent of fiscal decentralization.

The initial empirical study of this hypothesis (Oates, 1985) explored the relationship between decentralization and public-sector size for two quite different samples: a cross-sectional sample of 43 countries and a second cross-sectional sample consisting of the state-local sectors in the U.S. In neither case was I able to find any evidence of a significant negative relationship between the extent of fiscal decentralization and the size of government (as measured by tax receipts as a fraction of GNP). The findings, in short, were not consistent with the Leviathan view.

Some subsequent work, however, has muddied the waters a bit.[12] In particular, two studies making use of U.S. county data (Eberts and Gronberg, 1988; Zax 1989) have found evidence that the presence of more general-purpose local government units is associated with a smaller overall size of the county public sector. It may be that in this smaller geographical setting, the potential mobility of individual households is higher and acts to constrain local government budgetary activity. However, even here the results are not uniformly supportive of Leviathan. Forbes and Zampelli (1989) find that the more counties there are in a metropolitan area, other things equal, the larger is the metropolitan fisc--just the opposite of what the Leviathan view would suggest.

Cross-sectional studies at an international level continue to turn up no support for Leviathan. The share of the central government in the national fisc does not appear to be systematically related to the size of the public sector. James Heil (1991), in a follow-up study to mine, has employed two different international data sources with more recent figures, and, as in my earlier study, finds no relationship between the fiscal share of the central government and the size of the public sector.

The evidence is not wholly clear. But it seems to me that there is not enough clear support available to make a convincing

[12]See Oates (1989) for a summary and assessment of this later work.

case that decentralization in itself constrains government size. If we want smaller government, then other measures are probably in order.

VII. Some Concluding Thoughts on Patterns and Trends in Fiscal Centralization

In an almost tautological sense, it is clear that fiscal federalism is here to stay. A public sector in which fiscal decision-making is wholly centralized or, alternatively, wholly decentralized is virtually inconceivable. What we observe is a kind of tension between forces promoting fiscal centralization and those encouraging greater decentralization in the government sector. The balance seems to shift from one period to the next.

The tendency over the first half of this century was overwhelmingly in the direction of increased centralization. In the United States, for example, the central-government share of total public expenditure grew from about 35% in 1902 to 72% in 1952--over this same period the local-government share fell from 55% to 15%. This led some observers to see centralization as the natural course of evolution of the public sector over time. Late in the nineteenth century, de Tocqueville had, in fact, predicted just this--his forecast was that "...in the democratic ages which are opening upon us...centralization will be the natural government." In the twentieth century, one comes across "Bryce's Law"--the contention that "federalism is simply a transitory step on the way to governmental unity" (McWhinney, 1965, p. 105). The

argument, in essence, was that a public sector with a heavy reliance on decentralized fiscal choice does not constitute an equilibrium--it will move over time in the direction of growing centralization.

But such pronouncements were premature. The trend in the second half of the century has been, if anything, in the other direction with the state and local sector now exhibiting a larger fiscal share than it did in 1952. Similar tendencies reveal themselves in most other industrialized countries. What seems a better description is one of a shifting balance with the vertical structure of the public sector responding over time to the differing sorts of demands made upon it.

There are some striking differences in patterns of vertical fiscal structure across countries. The most dramatic and pervasive is the marked divergence in the degree of decentralization between the economically advanced and the developing countries. In one recent study of fiscal centralization involving samples of countries at different stages of economic development (Oates, 1985), the mean central-government share of public expenditure was 89% for the sample of developing countries and 65% for the sample of industrialized nations. A dominant feature of the public sector of most developing countries is a relatively small role for local government with heavy reliance on the central government both for the collection and disbursement of public revenues. Substantial fiscal decentralization seems to go along with more advanced

economic status.

Among the industrialized countries, fiscal federalism has exhibited some intriguing forms of innovation over the course of the twentieth century. In several countries, the evolution of the public sector has been in the direction of a more complex and highly specialized set of fiscal units. In the United States, for instance, there has been a striking rise in the number of "special districts"--single-function entities (primarily at the local-government level) that now provide a diverse set of services including highways, hospitals, libraries, sewers, housing, fire protection, and others.

New levels of government have emerged to address the growing demands on the public sector. Metropolitan government has come into being in the United Kingdom, Canada, the United States, and other countries in an effort to coordinate fiscal decision-making between central cities and their associated suburban communities. The formation of new levels of government is not limited to lower tiers. We are witnessing in Europe the development of a new top layer of government in the European Community. It is by no means clear what the ultimate scope of European "central government" will be--but it is certainly a striking contrast to watch its evolution alongside the continuing movements for "devolution" of the public sector in many member countries.

The growing complexity of the vertical structure of the public sector seems to render inaccurate and surely incomplete any contentions concerning general trends toward greater

centralization or decentralization of government. The evolution of fiscal federalism seems rather to be in the direction of developing a more specialized set of fiscal institutions to which fiscal responsibilities and instruments are assigned in ways to make the public sector more responsive to the variety of demands placed upon it.

Although economic analysis has much to contribute to our understanding of intergovernmental fiscal relations, I want to emphasize, in conclusion, what is perhaps a rather obvious point--that the "solutions" to federal fiscal problems must depend in important ways on the historical and constitutional character of individual countries. As Richard Bird (1986) has stressed, this national "character" has profound implications for the range of feasible and effective federal policy. It is possible, for example, for a unitary country like Great Britain to redraw local boundaries and redefine local tax instruments on a nationwide basis; in countries with federal constitutions, such redesign of fiscal jurisdictions and institutions is outside the realm of the possible. "Federal finance," as Bird points out, is a quite different matter from multi-level finance in unitary countries.

At the same time, this is surely not to say that all is a matter of individualized politics and that "anything goes." Sound and careful analyses of intergovernmental fiscal structures reveal all too often instances where existing institutions and policies simply are not achieving their professed allocative and distributive objectives. Economic analysis, both theoretical and

empirical, can make a fundamental contribution to the design of more effective systems of intergovernmental finance--systems in which fiscal functions are located appropriately within the vertical structure of the public sector and in which existing policy instruments are matched up effectively with these functions.

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